



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/678,017	10/04/2000	Koichiro Wanda	35.C14853	5637
5514	7590	01/24/2005	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			PHAM, THIERRY L	
			ART UNIT	PAPER NUMBER
			2624	

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/678,017

Applicant(s)

WANDA ET AL.

Examiner

Thierry L Pham

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-14,16-21,23-33,35-40,42-52,54-59 and 61-71 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-14,16-21,23-33,35-40,42-52,54-59 and 61-71 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2624

DETAILED ACTION

- This action is responsive to the following communication: an Amendment filed on 9/20/04.
- Claims 1-2, 4-14, 16-21, 23-33, 35-40, 42-52, 54-59, and 61-71 are pending; Claims 3, 15, 22, 34, 41, 53, 60, and 72 have been canceled.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 20, 39, 58 are rejected under 35 U.S.C. 102(e) as being anticipated by Mori et al (U.S. 6433882).

Regarding claim 1, Mori discloses an information processing apparatus (host computer 10 includes page separation unit for dividing/separating a print job into multiple EMF pages/files, fig. 2b and fig. 3) for dividing a print job to make a plurality of printers (printers 30a and 30b, fig. 14) execute a print process, comprising:

- spooling means (host computer 10 includes spooler 16 for spooling EMF files generated by application program 11, fig. 2b-fig. 4) for spooling device-independent-format data converted from data provided by an application;
- assignment means (host computer includes spool file processor for assigning the divided pages of EMF to printers, fig. 2b, fig. 3 and fig. 14) for generating from the device-independent-format data spooled by said spooling means, a plurality of pieces of divided print data for distribution printing (distributing to plurality of printers as shown in fig. 14), the divided print data being formed in device-independent format (spool data file includes plurality of divided EMF pages, fig. 3, col. 6, lines 30-35 and col. 8, lines 5-10);

Art Unit: 2624

- output means (host computer includes spooler file processor 20 for outputting the plurality of EMF pages to respective printer drivers as shown in fig. 14, col. 6, lines 62-67 to col. 7, lines 1-12) for outputting the plurality of pieces of divided print data generated by said assignment means to respective corresponding printer drivers (host computer includes plurality of printer drivers for converting EMF files to respective printer's language format such as PCL, Postscript, and etc., col. 6, lines 62-67 to col. 7, lines 1-16); and
- output control means (spool file processing unit 20 for outputting plurality of EMF files/pages, fig. 2b, fig. 3, fig. 14) for outputting a plurality of pieces of print data, generated in a device-dependent format (host computer includes code generator 29 for converting EMF files/pages to compatible printer's languages in dependent format, fig. 2b, fig. 14, col. 7, lines 33-42) from the respective ones of the plurality of pieces of divided print data (from plurality of divided EMF files/pages, fig. 3-4) output by said output means, to the respective ones of the plurality of printers (printers 30a and 30b, fig. 14), wherein said assignment means is able to assign the plurality of pieces of divided print data in the device-independent format to printer drivers (assigning plurality of EMF files/pages to plurality of printer drivers that further converts EMF to dependent format that is compatible with output printers, col. 6, lines 62-67 to col. 7, lines 1-16) that generate different types of print data.

Regarding claim 2, Mori further discloses an information processing apparatus according to claim 1, further comprising registering means for registering a plurality of output destination printers (printers 30a and 30b, fig. 14).

Regarding claims 20-21: Claims 20-21 are the methods corresponding the apparatus and recite limitations that are similar and in the same scope of invention as to those in claims 1-2; therefore, claims 20-21 are rejected for the same rejection rationale/basis as described in claims 1-2 above.

Art Unit: 2624

Regarding claims 39-40: Claims 39-40 recite limitations that are similar and in the same scope of invention as to those in claims 1-2 except computer readable memory for storing computer programs. All computers/printers have some type of computer readable medium (i.e. RAM, fig. 2a) for storing computer programs, hence claims 39-40 would be rejected using the same rationale as in claims 1-2.

Regarding claims 58-59: Claims 58-59 recite limitations that are similar and in the same scope of invention as to those in claims 1-2 except computer readable memory for storing computer programs. All computers/printers have some type of computer readable medium (i.e. RAM, fig. 2a) for storing computer programs, hence claims 58-59 would be rejected using the same rationale as in claims 1-2.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-14, 16-19, 23-33, 35-38, 42-52, 54-57, 61-71, 73-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori as described in claims 1, 20, 39, 58 above, and in view of Mima et al (U.S. 2002/0101604).

Regarding claim 11, Mori fails to explicitly disclose an information processing apparatus comprising:

- (●) re-arranging means for re-arranging a combination of a plurality of printers for outputting the divided print jobs, among the plurality of printers registered by said registering means, if a printer for outputting the divided print job cannot execute a print process; and
- (●) report forming means for forming a distributed printing result report in accordance with a distributed printing result obtained by the printers by the printers re-arranged by said re-

Art Unit: 2624

arranging means, wherein after the distributed printing by the re-arranged printers, the distributed printing result report formed by said report forming means is output to one of the re-arranged printers.

Mima, in the same field of endeavor for printing, teaches an information processing apparatus comprising:

- (●) re-arranging means (if the errors occur in of the distributed printers, then transmitting the unprinted data to other printer, page 6, par. 62-64) for re-arranging a combination of a plurality of printers for outputting the divided print jobs (dividing a print job into multiple small jobs (parallel printings, fig. 2, page 1, par. 12 and page 2, pars. 17-19), among the plurality of printers registered by said registering means, if a printer for outputting the divided print job cannot execute a print process; and
- (●) report forming means (error handler, fig. 8) for forming a distributed printing result report in accordance with a distributed printing result obtained by the printers by the printers re-arranged by said re-arranging means, wherein after the distributed printing by the re-arranged printers, the distributed printing result report formed (print reports, page 4, par. 45-51) by said report forming means is output to one of the re-arranged printers.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify and combine Mori as per teachings of Mima because of a following reason:

- (●) by dividing a print job into multiple small jobs and distributing (parallel printings) it to a plurality of printers will reduce processing/printing time and to improve the efficiency/performance of the network printers (Mima, page 1, par. 12) by allowing other available printers to complete the unfinished print data.

Therefore, it would have been obvious to combine Mori with Mima to obtain the invention as specified in claim 11.

Regarding claim 3, Mima further teaches an information processing apparatus according the print data is generated by a printer driver (device driver, fig. 2, for converting document data into print data, page 3, par. 42) of each of the plurality of registered printers.

Art Unit: 2624

Regarding claim 4, Mori further teaches an information processing apparatus according to claim 1, further comprising judging means (spool file processing unit includes judging means, col. 9, lines 15-32) for judging a combination of the plurality of printers and judging whether device dependent data or device independent data (types of print data, col. 9, lines 15-32) is spooled.

Regarding claim 5, Mori further teaches an information processing apparatus according to claim 4, wherein said judging means judges (spool file processing unit, fig. 2b) whether all of the plurality of printers are printers using a printer language capable of dividing the print job in a page unit (dividing print job into multiple EMF pages/files, fig. 4).

Regarding claim 6, Mima further teaches an information processing apparatus according to claim 4, wherein said judging means judges whether all of the plurality of printers are printers of a same type (figs. 1 and 5).

Regarding claim 7, Mima further teaches an information processing apparatus according to claim 4, wherein said judging means judges whether all of the plurality of printers have a same printer drivers (device driver incorporated in the computer controls plurality of printers; therefore, all printers are using the same printer driver, fig. 2).

Regarding claim 8, Mori further teaches an information processing apparatus according to claim 4, wherein the device dependent data is RAW (i.e. PCL, fig. 14) data and device independent data is EMF (EMF, fig. 3).

Regarding claim 9, Mima further teaches an information processing apparatus according to claim 1, further comprising:

(1) judging means (document monitor, fig. 2) for judging whether a page number of a page to be printed can be designated (designating a particular page from a print job to be printed, page 1, par. 12) in the print job to be output from each printer; and

Art Unit: 2624

(2) transfer control means (computer, fig. 2) for copying the print job as many as the number of printers for outputting the divided print jobs (a single job can be transmitted to multiple printers connected via network, fig. 1), adding a page number (page 4, par. 49) of a page to be printed to each of the copied print jobs, and transferring the copied print jobs to the printers, if said judging means judges that the page number can be designated, and if said judging means judges that the page number cannot be designated, dividing the print jobs for each page to be printed at the printers for distributed printing and transferring the divided print jobs to the printers (dividing a print job into multiple small jobs (parallel printings, fig. 2, page 1, par. 12 and page 2, pars. 17-19).

Regarding claim 10, Mima further teaches an information processing apparatus according to claim 9, wherein said judging means judges from page designation print performance information of each printer whether the page number of a page to be printed can be designated in the print job to be output from each printer (print report corresponding to each printers, fig. 6, page 4, par. 46-49).

Regarding claim 12, Mima further teaches an information processing apparatus according to claim 2, further comprising distributed data generating means for dividing the print job and making a printer driver corresponding to each printer generate print data to print the print data (device driver, fig. 2, for converting document data into print data, page 3, par. 42) at the printers registered by said registering means, wherein said distributed data generating means controls each printer driver to generate the print data added with an off-line command (page 1, par. 13).

Regarding claim 13, Mima further teaches an information processing apparatus according to claim 12, wherein the printer driver (printer driver is incorporated in the computers and these computers control the printers, fig. 2) corresponding to each of the printers registered by said registering means generate the print data.

Regarding claim 14, Mima further teaches an information process apparatus according to claim 11, wherein if all the printers cannot execute the print process, this effect is output to a

Art Unit: 2624

printer which outputs the distributed printing result when an error occurs (malfunction within the printers, fig. 6, page 2, par. 17-19).

Regarding claim 15, Mori further teaches an information processing apparatus according to claim 11, wherein said output control means generates the print data by acquiring data of an intermediate data format (EMF format, fig. 3)spooled by said spooling means.

Regarding claim 16, Mima further teaches an information processing apparatus according to claim 12, wherein said registering means registers a printer to which the distributed printing result report (output printing result report, page 2, par. 17-19 and page 4, par. 45-49) is output.

Regarding claim 17, Mima further teaches an information processing apparatus according to claim 11, wherein the print data is generated by adding an off-line command (a command to designate a particular page of a document to be printed, page 2, par. 20) to the print data for distributed printing.

Regarding claim 18, Mima further teaches an information processing apparatus according to claim 11, further comprising:

- (1) judging means for judging whether each of the printers registered by said registering means outputs the print job normally (normal printing message, page 4, par. 45);
- (2) wherein the distributed printing result formed by said report forming means is output to a printer to which the report is output, if said judging means judges that the print job for each printer cannot output normally (output printing result report including malfunction errors occur within the printers, page 2, par. 17-19 and page 4, par. 45-49).

Regarding claim 19, Mima further teaches an information processing apparatus according to claim 11, further comprising: detecting means (printer monitor, fig. 1) for detecting a print job process error (errors occur within the printers, page 2, par. 18-19) by monitoring a process state of the print job distributed to the printers by said output control means, wherein said re-arranging means re-arranges (designate to a different printers for outputting unprinted data, page 2, par. 18-

Art Unit: 2624

19 and page 6, par. 62-647) a combination of a plurality of printers capable of normally outputting the print job distributed to the printers by said output control means, in accordance with a detection result of the print job process error by said detecting means.

Regarding claims 23-33, 35-38 are the methods corresponding the apparatus and recite limitations that are similar and in the same scope of invention as to those in claims 4-14, 16-19; therefore, claims 23-33, 35-38 are rejected for the same rejection rationale/basis as described in claims 4-14, 16-19 above.

Regarding claims 42-52, 54-57: Claims 42-52, 54-57 recite limitations that are similar and in the same scope of invention as to those in claims 4-14, 16-19 except computer readable memory for storing computer programs. All computers/printers have some type of computer readable medium (i.e. RAM, fig. 2a, Mori) for storing computer programs, hence claims 42-52, 54-57 would be rejected using the same rationale as in claims 4-14, 16-19.

Regarding claims 61-71, 73-76: Claims 61-71, 73-76 recite limitations that are similar and in the same scope of invention as to those in claims 4-14, 16-19 except computer readable memory for storing computer programs. All computers/printers have some type of computer readable medium (i.e. RAM, fig. 2a, Mori) for storing computer programs, hence claims 61-71, 73-76 would be rejected using the same rationale as in claims 4-14, 16-19.

Response to Arguments

Applicant's arguments with respect to independent claims 1, 20, 39, and 58 have been considered but are moot in view of the new ground(s) of rejection due to newly added limitations.

Art Unit: 2624

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L Pham whose telephone number is (703) 305-1897. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on (703)308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thierry L. Pham

TP


GABRIEL GARCIA
PRIMARY EXAMINER